

OPEN LETTERS.

Peloria of *Linaria vulgaris*.

I had, to-day, the most extraordinary confirmation of the idea sometimes cherished, that when the mind is charged with a particular notion the subject is not far to seek. Passing near a lot covered over with *Linaria vulgaris* in full bloom I said, "Now is my chance for peloria!" Sure enough, though the incredulous may smile, at my very feet was a bed of twenty or more plants, all showing it, and in most fanciful ways. I have in other seasons occasionally met with a single flower so reverted at the top of a stem, but here were flowers with five spurs, some with three, some with two, and others normal, all on the same stems; this, too, shown by many distinct plants. All the peloric blossoms examined show an androecium of five stamens, irrespective of the number of spurs. There are, also, five lobes to the corolla in each case. Some of the flowers are disposed in whorls, these nearest the top of the stem, as if the raceme were breaking up. The number of spurs decreases in acropetal order. In one flower fasciation is shown as well as peloria; the result is a corolla of two *double* spurs, a corrugated palate, an upper lip of four lobes, and a lower of six lobes. It is especially to be noted, in view of the "supply of energy" theory, that these flowers are all along the stems, not necessarily at the top, and that the lowest of flowers, as a rule, are most peloric. Gray's Manual states that Dr. Darlington observed the peloric state of *Linaria vulgaris* in Pennsylvania. For real good Yankee eccentricity, Rhode Island is, as ever, ahead.

Providence, R. I.

W. W. BAILEY.

Botanical papers at the A. A. A. S.

Referring to the biological section of the American Association, the GAZETTE remarks: "Very little can be claimed, however, for the quality of the botanical papers. With some exceptions, they showed a narrowness of observation and a superficiality of study which were lamentable." As the only papers these can possibly refer to, from the synopsis given in the GAZETTE (the others being commended, or only read by title or brief abstract) were Professor Sturtevant's, Professor Schrenk's, Professor Halsted's, Professor Beal's, or Mr. Meehan's, and as the editorial notes show which papers the "cap" is intended "to fit," I trust you will allow me to remark that I should feel no right to object to this decision of the editors of the GAZETTE if I felt that my papers were understood by those who listened to them. Indeed, I do not now object to your decision, but simply desire to ask the reader to compare the abstracts as given, with the notes of what the objectors said in proving the point that the essays must have been misunderstood.

I had no other object in presenting the papers than to contribute to the interest of the meeting, and I can only say, in regard to the quality of the entertainment offered, as Dr. Gray once said when told that a brother botanist had declared that he could "get out a better manual" than the doctor had done, "He is the man I want to see. By all means, let him bring his manual out." No one will be more pleased with better papers than I.

Having, however, the above thought of temporary interest only in view, I had no idea of publishing my papers in the form in which they were then presented; but in view of the sharp, and perhaps just, criti-

cism of the editors of the GAZETTE, it will only be fair to myself that I take the benefit of the doubt, and lay them in full before my fellow students, and I hope before long to find some opportunity of doing so.

Germantown, Pa.

THOMAS MEEHAN.

[The GAZETTE'S criticism was not directed wholly to Mr. Meehan's papers, as he assumes. Much less were any papers judged by the amount of "entertainment" or "temporary interest" they afforded. The criticism was aimed wholly at their character as *scientific* productions, as which, it is to be assumed, they are presented.—EDS.]

CURRENT LITERATURE.

Origin of our Trees.

Paleobotany, founded by Adolphe Brongniart, is a subject of great and increasing interest. The difficulties with which it has to contend are enormous, and its growth necessarily slow, but a few years has brought much information, and paleobotanists are to be commended for their great activity. Eminent among the multiplying workers is Count Saporta, whose last work¹ is before us, on the origin of trees cultivated or used by man. The text is interspersed with 44 excellent figures, and the whole treatment of the subject is remarkably clear. Of course it would be impossible in this brief sketch to give any detailed account of a book which is entirely made up of details, but a brief synopsis of contents will serve. The subject proper begins with a discussion of the various groups of gymnosperms; in the second division the monocotyledons are considered, with such forms as the palms and smilax; the third and largest division is devoted to dicotyledons, its many arborescent orders being taken up in succession. The figures are very suggestive, and being usually labelled as the ancestral forms of familiar modern groups, at once catch the attention of a botanist. One of the most excellent features of the book is a synoptical table, which gives in a condensed form, arranged according to geological chronology, the beginnings of the various groups. By this means a glance will catch facts which otherwise would demand much reading for their discovery, and probably would be lost sight of entirely unless the reader was very conversant with French. For instance, one sees that the Carboniferous has given the first indication of the existence of Cycads, the primitive *Salisburias*, etc., while the type *Salisburia*, or *Ginkgo*, is not established until the Permian. In the upper Trias we find the ancestors of the *Cupressineæ*; while in the lowest member of the Cretaceous the first dicotyledons are discovered, and possibly the genus *Populus*, an appearance which is speedily followed in the upper Cretaceous (Cenomanian) by a great abundance of dicotyledonous types. This

¹ SAPORTA, LE MARQUIS G.—Origin paléontologique des arbres cultivés ou utilisés par l'homme. Pp. xvi. 360. Paris: J. B. Baillière et fils, 1888. Price 3 fr. 50c.